MULTILATERAL INVESTMENT FUND  | **PROJECT ABSTRACT**

**PROJECT NAME:** Reducing the environmental footprint of the coffee sector and carbon neutral certification

**PROJECT NUMBER:** HO-M1036

**PROJECT TEAM:** Lorena Mejicanos Rios (FOMIN/A2BS), Team Leader, Fausto Castillo (CHO/FOMIN), Gladis Gómez (CHO/FOMIN), Ubaldo Inclán (INE/CCS), Ruben Doboin (FOMIN/DEU), Elizabeth Cushion (INE/CCS), Andres Rebolledo (INT/TIU), Dora Moscoso (FOMIN/DEU), Sonia Puente (FOMIN/KSC), Jennifer Baldwin (FOMIN/A2BS), and Isabel Auge (FOMIN/A2BS).

1. **PROJECT SUMMARY**

Provide a ***brief summary paragraph*** describing the problem, what the project will achieve and the MIF additionality. During *wet processing* of coffee, cooperatives generate large volumes of waste pulp and water that pollute the environment and the local water bodies. Additionally, the process of de-pulping and drying coffee demands high energy inputs, including fossil-fuel-based electricity and heat. The coffee industry lacks the knowledge and technology to adopt best practices in waste management to improve energy consumption, reduce the use of agrochemicals in their production chain, and reduce greenhouse gases (GHGs) in the coffee supply chain. Waste management systems can recycle wastes into a source of energy and bio-fertilizer, which can in turn be used to improve production and soil quality. The project will help the coffee sector to promote a culture of responsible and sustainable production, to demonstrate technological alternatives that avoid or reduce GHGs, and to measure reductions in operating costs and increases in profitability. This project will also help the coffee sector to meet international demand for more sustainable products, giving a competitive advantage to the small producers.

1. **PROJECT CONTRIBUTION TO THE AGENDA**

Explain to what extent the project contributes to achieving ***MIF’s mission and objectives*** Private sector development: The coffee sector is the most important sector in terms of job creation in Honduras, with approximately 1 million jobs across the coffee supply chain. Currently, 95% of production comes from small producers (up 2.4 ha). In 2011, Honduras became the largest coffee exporter in Central America. It’s the third largest in Latin America, and sixth worldwide. In coffee processing, only 20% of the coffee bean is dried for sale. The remaining 80% becomes waste in the form of pulp and acidic waste water. However, these discards that are currently detrimental to the environment can actually serve as raw materials for bioenergy and bio-fertilizer if captured and treated. These by-products can increase the coffee producers´ income, promoting the development of the private sector.

Poverty Reduction: 95% of coffee production in Honduras comes from small producers in the central-western region, which are characterized by high rates of poverty, lack of basic services and limited employment opportunities. Indirectly, the project will increase alternative employment opportunities and improve the income level of farmers. In addition to venturing into the topic of cleaner production, the project will result in a healthier environment, will safeguard natural resources through carbon neutral certification, and will secure the permanence of their product in the international market.

Explain how the project aligns and contributes to one or more of the ***MIF agendas***.

The project is aligned with 3 agendas: (i) **Clean energy and efficient energy**, since it plans to develop a model to support small farmers to improve their production practices, generate emissions reductions in their production processes, and eventually to market the residuals for household or community use, improving their competitiveness and generating additional sources of revenue; (ii) **Natural Capital**, since it will conserve water; and (iii) **Access to higher value markets**, since it will help cooperatives of small producers to certify their product as Carbon Neutral (C-Neutral) Coffee in recognition of environmental mitigation efforts.

**Innovation**: Carbon neutral (C-neutral) means that the net carbon footprint of the product is zero. To achieve this certification, the current carbon footprint of a product’s direct and indirect production activities must be calculated and either (i) reduced through improvements or replacement of the sources that emit (through mitigation projects such as energy efficiency, renewable energy generation, and reduced methane emissions by decomposing the pulp under anaerobic conditions); and/or (ii) offset emissions through the purchase of carbon credits equivalent to the amount generated in production. This operation is the first MIF initiative to drive GHG reduction for the coffee sector and its C-Neutral Certification.

Explain how the project contributes to the agenda in terms of ***results and knowledge***.

The proposed business model will have positive cost-benefit, profitability, and performance. It will generate:

1. GHG emissions reduction of at least 6,000 tCO2e per year;

2. Annual production and marketing of at least 129,600 liters of bioethanol, 189,000 m3 of biogas for productive use, and 30,000 Kilos of biofertilizers;

3. Energy savings to beneficiaries in the coffee sector of at least 46,320 kWh / harvest;

4. Service offerings of at least 2 suppliers of technology and technical assistance;

5. Reduction in water consumption (to be defined, compared to baseline);

6. A number of new markets accessed

1. **INFORMATION**

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| --- | --- | --- | --- | --- |
| **COUNTRY:** | Honduras (we are exploring making this a Regional project) | **MIF TECHNICAL COOPERATION:** | $ 1,120,000 | 70% |
| **LOCATION:** | Central-West of the country | **COUNTERPART:** | $480,000 | 30% |
| **EXECUTING AGENCY:** | SNV | **COFINANCING (IF AVAILABLE):** |  | % |
| **ACCESS AREA:** | Basic Services | **TOTAL PROJECT:** | $1,600,000 | 100% |
| **AGENDA:** | 1. Clean & Efficient Energy, 2. Natural Capital, 3. Higher value markets | **NUMBER OF DIRECT BENEFICIARIES:** | 6 coffee cooperatives / business associations, IHCAFE and AHPROCAFE. | |
| **COMPLEMENTARY BANK OPERATIONS (IF ANY):** | NA | **NUMBER OF INDIRECT BENEFICIARIES:** | 1,800 small producer cooperative members, their communities, and their natural resources, and CATIE | |
| **QED SCORE:** | 7.95 | |

1. **PROBLEM DIAGNOSIS**

**S*ummarize the problem(s)*** that the project is expected to address. Clear, accurate and sufficient information about the challenges should be provided, including basic ***quantitative and/or qualitative data*** to allow for an adequate dimensioning of the problem.

Pollution in the coffee regions of Honduras mainly comes from cooperatives using *wet processing* methods, which result in waste coffee pulp decomposing in the open air and generating methane, and conversion of high amounts of fresh water to wastewater, contaminating both surface and groundwater supplies. These environmental problems generate odors, proliferate diseases, and negatively impact natural resources, as well as the lives and health of the communities living in coffee production centers. Air and water pollution in areas are the main problems to be faced by this initiative.

In addition, the process of drying and depulping coffee requires large amounts of energy, including electricity, heat, which in some cases is sourced from fossil fuels. The parts of the process using the most energy are electric motors and water pumps for depulping, classification mechanical dryers, and boilers and furnaces for drying. Typically, 11.95 kWh of electricity and 111.46 Kwh of thermal energy are required to produce one quintal of green coffee.

These problems have an impact nationally because coffee is grown in 15 out of 18 states and 213 out of 298 municipalities in Honduras (237.000 hectares nationally). More than 100,000 households located in rural areas depend on the crop and 95% of production is in the hands of small producers. In the 2010-2011 crop production reached 5.2 million pounds of green coffee. According to the Central Bank of Honduras (2010), coffee contributes 6% of national GDP and 28% of agricultural GDP, ranking first as an agricultural product generator of foreign exchange, which means U.S. $ 1.240 billion in revenue for the country during harvest 2010/2011.

Mention the ***causes of the problem***, their interrelationships and magnitudes.

Environmental pollution and GHG emissions generated by this sector are mainly due to improper handling of pulp and waste water in the *wet milling* of coffee, for several reasons: i) It is expensive to treat coffee wastewater since it is very acidic (low pH) and contains high concentrations of organic matter, ii) there is a lack of knowledge of standards for wastewater and its various types of treatment, iii) there has been no international market requirement for environmental responsibility in products, but that is changing rapidly. Additionally, cooperatives in the west-central region have limited power supply options. This can jeopardize the timely processing of wet and dry grains and affect the production quality and quantity, with the consequent reduction of their coffee’s price on foreign markets.

***Classify the problem*** in one or more of the following categories that most apply:

**Market failure Skill deficit**

**Institutional weakness Collective action problem[[1]](#footnote-1)**

**Policy weakness/failure Lack of appropriate technology**

**OTHER (Explain as needed)\_\_\_\_\_\_\_\_\_\_\_**

***Project beneficiaries***

The direct beneficiaries will be 6 coffee cooperatives / business associations located in rural west-central Honduras, the largest coffee-producing region in the country. Each cooperative has 110-650 members, has at least one certification (including organic, Fair Trade, designation of origin, or socially and environmentally responsible agricultural production), and has launched at least one cleaner production initiative. Only three of them already have facilities for production of biogas or bioethanol. Indirectly the project will benefit the 1,800 small coffee producer members of these 6 cooperatives, their families and communities, as well as biodiversity, to make better use of water and ensure its quality. AHPROCAFE and IHCAFE will also benefit.

The central-western region is characterized by having very high rates of poverty, mainly reflected in the lack of access to basic services like running water, electricity, adequate income, and they suffer from high costs of basic goods and limited sources of employment. The human development indices are lowest in the country in this region, ranging from 0.619 to 0.647 in Ocotepeque compared to the national average of HDI 0.625[[2]](#footnote-2).

The West Central region of Honduras is composed of 7 departments, Santa Barbara, Copan, Ocotepeque, Lempira, Intibucá, La Paz and Comayagua. About 68% of total national coffee production comes from this region. This region has a planted area of ​​approximately 61.578 hectares with an average production of 1,600,000 bushels. 40% of this coffee is categorized as one of “strict height” and 80% of this total is exported to international markets.

***Gender:*** Identify particular problems confronting women in this context.

It is estimated that women participate in 60% of the work in the coffee chain, but their salary represents only 67.6% of the average wage earned by men under the same conditions. Many women-owned or managed farms do not have their *“Producer code*” or coffee sales records in their names, which is required to access IHCAFE assistance programs.

1. **PROJECT DESCRIPTION AND MIF ROLE**

Describe the ***project objectives*.** The objectives should directly address the problem(s) stated in the previous section.

The overall project objective is to improve the environmental performance of the Honduran coffee sector to increase competitiveness and better position themselves in the international market. The specific objective is to build a model to improve production processes while reducing environmental impacts in the Honduran coffee industry and thus achieving C-Neutral certification.

Describe specifically details of the ***model/solution/intervention*** and its financial viability (if relevant) and/or sustainability.

This model was piloted in DANIDA’s Regional Environment Program in Central America with positive results, and lessons learned on how to improve the model, particularly by introducing carbon footprinting of coffee organizations to allow for certified carbon neutrality, which may bring additional trade benefits. In addition, the project could be improved by measuring indicators of profitability, energy efficiency and water consumption, which were not included in the pilot phase; by increasing access to new technology (biodigesters and gasifiers for productive use); by building the capacity of technical assistance providers to maintain the equipment; and to increase research and dissemination of knowledge about the technologies.

One of the proposed models has been implemented in three collectives of small and medium producers in Honduras (COCAFELOL, COMSA and ARUCO) but has not yet proven cost-effective and needs further technology improvement and validation. This model will be improved and adapted to three other cooperatives to cover a total of 6 cooperatives. This project will additionally include capacity building in the 6 cooperatives to measure and offset the carbon footprint of the coffee production chain, conduct research, and develop knowledge. The selection criteria has been pre-defined[[3]](#footnote-3). The project will explore measuring the environmental footprint of the cooperatives, given the importance of water conservation and quality.

The project will implement climate change mitigation initiatives, including the use of solid and liquid waste from *wet processing* for the generation of renewable energy (biogas and/or bioethanol), vermiculture projects, or others deemed appropriate for reuse in the processing and drying of coffee. This process will generate organic fertilizer (biosoil) and liquid (biol) that will improve soil quality and performance, with potential to be used in organic coffee production. In addition, the project will promote water conservation.

Provide a brief description of the proposed ***components*.**

I. Awareness and Promotion of the project: The goal of this component is to raise awareness among key audiences (local, regional, national) about the project and its impacts on the recipient cooperatives, collective brands / designation of origin of the growing regions and the country to induce culture change to adopt the model. Key stakeholders will be mapped including those in the public and private sectors, civil society, financial and technology service providers, universities, research centers, vocational centers, members of the WHC (Western Honduras Coffee) collective brand, and the Café Marcala designation of origin brand. Promotional materials will be designed for different audiences, awareness raising sessions will be organized with the support of AHPROCAFE to identify other ways of involving key stakeholders during the life of the project, including but not limited to the dissemination of the results.

II. Diagnostic of coffee production practices: The objective of this component is to evaluate the current state of the coffee sector and its production systems in comparison with international practices, to identify processes that can be improved. The evaluation will include a literature review and a series of interviews with both entrepreneurs and trade associations.

III. Measuring the carbon footprint: The objective is to analyze the life cycle of coffee production, identify the major sources of GHG emissions and calculate the carbon footprint as an initial step to reach green consumer markets. For carbon neutral coffee, the environmental impact is calculated from the farm to shipment from the port using the PAS 2050 standard. The calculations and process is then verified by accredited entities. Based on the results of the analysis, a neutralization plan (Green Plan) is designed, which will take into account avoidable emissions associated with energy consumption, raw material consumption, waste mismanagement, and inefficient processes, and also carbon offsetting.

IV. Implementing Green Plans: The objective of this component is to support at least 6 coffee cooperatives to reduce GHG emissions in the process of coffee production through the implementation of recommended actions in their Green Plans developed in Component 3. It will provide technical assistance to companies to implement actions in wet and dry processing and the management of smallholder farms. These measures may include proper waste management, reduced energy consumption, water conservation and treatment, chemical fertilizer reductions, and fossil fuel substitution with renewable fuels. Specifically, the project will design and construct 3 plants with adaptive technology to produce bioethanol, biogas and bio-fertilizers during the first and second year of the project (paid for with counterpart funds). Staff and members of cooperatives and producer associations will be trained in partnership with IHCAFE (who may build a pilot plant) on the operational, economic, legal, technological, environmental, sustainability and maintenance requirements of the plants. It will also include training for service providers, installers, manufacturers and maintenance professionals of this technology.

V. Use and commercialization of byproducts: The objective of this component is to support the establishment of marketing channels for bioethanol (for use in stationary combustion engines and vehicles) and biofertilizers (for use on farms) among coffee producers in the area, as well as identifying the best use of biogas in the centers of wet and dry coffee processing and surrounding communities. In parallel with the actions contained in the Green Plans, it will advise the cooperatives on business development for the sale of new products, how to control quality of the products, and how to define volumes and prices. This Component will also train farmers about the benefits associated with the use of bioethanol and bio-fertilizers. Additionally, this component will promote the application of the “Law to promote the consumption and use of biofuels,” which provides tax incentives to producers and consumers of biofuels. Currently these incentives are not being taken advantage of, mainly due to lack of knowledge about their existence and requirements.

VI. Carbon neutral certification and access to better markets: The objective of this component is to market C-Neutral coffee produced by this project to international markets to improve sales prices. It will provide technical assistance in the C-Neutral certification process to 6 organizations using PAS 2060, the Carbon Trust Standard, NoCO2, or similar standards to be defined according to the market. It will raise awareness in international buyers on the importance of these certifications in order to improve their purchase price, through active participation of AHPROCAFE and IHCAFE in different fairs and exhibitions in major importing countries on different continents, such as SSCA, SEEA specialty coffees (Japan and Korea), the International Coffee Fair, etc. (Component to be coordinated with the UNDP initiative).

VII. Research and knowledge management: The objective of this component is to generate knowledge to be applied in the integrated model adapted to this project. It will launch a demonstration plant at IHCAFE in the first year of the project which will integrate technology improvements that can be adapted to local contexts. Agreements will be signed with universities and research centers to carry out evaluation and validation of alternative processes and raw materials, the applicability of the technology will be tested, production costs and energy consumption estimated, other potential uses of the byproducts will be identified (bioethanol, biogas, biosoil, and biol), and their uses in surrounding communities will be tested (including in stoves, lighting, heating, and application of bio-fertilizers on other crops). Best practices and lessons learned will be systematized and the results will be disseminated to the key players identified in the initial mapping exercise.

Describe clearly ***what the MIF is financing and why***.

MIF will fund the operation of the Project Implementation Unit, capacity building, technical assistance for plant design, marketing activities and marketing of products, advice on measurement and verification of carbon footprinting and the implementation of measures to neutralize the carbon footprint, recruitment of research centers, and monitoring and evaluation services.

This initiative supports the mission of MIF, in the sense that the MIF supports development led by the private sector for the benefit of the poor, their businesses, their crops and their homes, and to facilitate access to tools, skills, technologies, and markets to increase their incomes.

Explain ***MIF or other organizations’ experience.*** SNV has designed and implemented a prototype production system for bioethanol, biogas and biofertilizer production from coffee processing waste in a cooperative of small producers in Marcala, Honduras. Afterward, with some adjustments to the original model, they adapted it to a cooperative and a business association in the west, with funding from AECID. These initiatives indicate that there is great potential for scalability of the model, but it still needs to be improved and adjusted taking into account the lessons that have been generated.

In addition, this project will be linked where possible to the "Financial mechanisms for sustainable coffee production in Colombia and Honduras" project developed by the United Nations Development Program[[4]](#footnote-4), particularly component 4, "Building Partnerships with international buyers to encourage the purchase of sustainably produced coffee."

Outline ***lessons learned and/or best practices*** that have been incorporated and taken into consideration for the project design.

1. From the beginning when the plants are constructed, it is important that the cooperatives train human resources to develop the skills to understand how the equipment works, so that they can operate it safely and maintain it in good condition.

2. It is recommended to research, test, and validate various other raw material inputs to the biodigesters, to identify alternatives that keep the plant in operation throughout the year, including in the off-season of the coffee harvest.

3. From the inception of the project is will be important to incorporate and document C-Neutral certification requirements at ever stage to ensure reduced GHG emissions, with the expectation that this will gain higher prices for the product on the international market and thus generate additional revenue for the cooperatives.

4. No local companies currently specialize in technical services delivery for biogas and bioethanol technology, making it necessary to build their capacity to assist from the design phase to post-installation. To consolidate local technical capacity and ensure quality, there needs to an exchange of experiences and learning generated by developing appropriate information and knowledge management tools.

5. There should be continuous improvement and adaptation of technologies that produce renewable energy, since these are very incipient technologies in the country.

6. It is necessary to analyze and disseminate knowledge of regulatory incentives in Honduras for the production and use of biofuels, as there is a lack of clarity in the rules and application procedures.

1. **KNOWLEDGE SHARING AND COMMUNICATION STRATEGY**

Indicate the ***knowledge objective*** to be achieved (e.g. testing or adapting a model, testing or adapting tools, identifying and disseminating best practice, etc.).

The three recent experiences implemented in Honduras show that the model works, however there is still room for improvement in adapting and improving the technology, demonstrating its cost effectiveness, profitability, and market potential. Additional training is required to ensure functioning systems, build capacity to calculate carbon footprints, achieve carbon neutral certification, and improve access to markets that recognize and pay for this added value. For this reason, the project prioritizes the research process, innovation development, and knowledge to ensure sustainability of the model and scalability nationally and regionally.

Identify the ***audiences*** that have a stake in the results of the project and the desired action that is expected from them. Mention the ***message*** and the appropriate ***communication channels*** to reach the different audiences.

Audiences include micro and small coffee enterprises, associations, cooperatives, networks of coffee companies, the national union of coffee producers, research and teaching institutions in the region (e.g. CATIE), financial institutions who might be interested in developing new financial products to meet the demand for funds for similar initiatives in the country, the International Coffee Organization, and local and municipal institutions such as the Ministry of Natural Resources and Environment.

Describe the ***main knowledge sharing product*** that the project will deliver in order to achieve the knowledge objective and reach the identified audiences.

1 Case study and technical report documenting an improved and validated model for the use of waste from the coffee wet process as a renewable energy source, incorporating emissions accounting and adoption of energy efficient practices in the production and processing of coffee.

1. **INITIAL SURVEY AND BASELINE DATA**

Indicate how ***gender-disaggregated*** ***baseline data*** on the relevant economic and social indicators for the beneficiary population will be established (include poverty, income, consumption, jobs, sales and revenues, exports, other business characteristics, health, nutrition, education, gender, location and carbon emissions metrics, as relevant).

At the start of the project, data on the beneficiaries will be taken from administrative records of the cooperatives (including income and employment indicators). Interviews will be conducted with key informants to understand the situation before the intervention, including participatory rapid appraisal techniques in which groups report on the conditions of the community and their problems. Secondary data will also be collected from national household surveys, censuses and similar studies at the start of the intervention.

1. **PROJECT RESULTS**

Provide preliminary estimates of ***quantitative and/or qualitative metrics*** that will be used to track and measure project results.

1. Emissions reductions of at least 6,000 tons of CO2e per year, by the end of the project;

2. Production and marketing of at least 129,600 liters of bioethanol, 189,000 m3 of biogas for productive use, and 30,000 Kilos of biofertilizers.

3. Energy savings of at least 46,320 kwh per harvest in the coffee sector;

4. Creating a service offering of at least 2 suppliers of technology and technical assistance;

5. Construction of at least 4 plants, 3 in cooperatives and 1 at IHCAFE’s Experimental Center;

6. Capacity building of at least 2 local companies for maintenance of bioethanol, biogas and bio-fertilizer plants;

7. Training in coffee waste management and carbon footprint neutralization measures to at least 1800 producers;

8. Training of at least 8 people to operate and maintain the plants;

9. Carbon footprints calculated and Green Plans developed for 6 coffee cooperatives;

10. At least 6 cooperatives have been certified as carbon neutral;

11. Development and publication of at least 3 research products related to: (i) 1 manual on technology application, estimated production costs, and energy consumption; (ii) 1 document on best practices and lessons learned; and (iii) 1 manual for the measurement of carbon foorprints and obtaining carbon neutral certification in the coffee sector.

12. 1 proposal to establish technical standards for measuring carbon footprints and carbon neutrality of coffee for Honduras and Central America (except Costa Rica, which already has both).

13. 1 proposal for a marketing strategy for coffee produced with certified carbon neutral coffee.

Describe the planned ***monitoring mechanisms*** that will be used to collect and track the data in order to measure project results.

A monitoring tool for recording changes in indicators from the baseline will be designed. Existing records will be used as part of the means and verification of project indicators.

Discuss briefly the ***sustainability*** of the project, explaining how benefits or services created will continue in the short and long term after project funding ends.

To ensure sustainability, the project will take a programmatic approach to the carbon neutral certification process. From the institutional point of view there will be a pilot plant from year 1 at a private institution that regulates the coffee sector (IHCAFE), which will help share the innovative prototype and methodology developed by SNV. Capacity building of local technology suppliers will ensure the permanent provision of quality technical services after project completion. The plants are flexible and can process other wastes available in the project area to keep it running in the coffee off-season, which will ensure the supply of ethanol and other byproducts for the domestic. Mechanisms will be established to distribute income from the sale of bioethanol and bio-fertilizers and carbon neutral price premiums to the small producers. At least one partnership with a commercial partner to guarantee the purchase of certified carbon neutral coffee will be established.

1. **PROJECT IMPACT**

Provide ***quantitative and/or qualitative metrics of the desired impact*** in terms of economic and social benefits for direct and indirect beneficiaries (e.g. changes in income, poverty reduction, consumption, jobs, sales and revenues, exports, business created, profits, health, nutrition, education, poverty reduction, gender, etc.). In addition provide metrics for impact on climate change where relevant.

1. Revenue from sales of bioethanol per year: $ 51,840 for the 6 cooperatives

[Each plant is estimated to produce 144 liters of bioethanol a day on average, and to operate 7 days of the week for 4 months, which would be 17,280 liters per plant during the harvest season (times 6 plants). The cost of ethanol in Honduras is $0.50 USD per liter.]

2. Cost reduction of $ 41,688 USD / year by biogas substitution.

[It is estimated that 210 m3 of biogas is produced per day per plant on average and if this is converted to kWh it would be 386 kWh / day. In Honduras gas costs $ 0.1520 USD per kWh. An estimated 25,200 m3 of biogas produced per plant per season.]

3. Sales revenue of $64,800 USD biol/year.

[It is estimated to produce an average of 9 m3 of biol day, 1,080 m3 per plant during harvest, times 6 plants, = 6,480 m3 generated per year. The price is estimated at $ 10 per m3.]

4. Sales revenues of $3,723 USD biosoil/year.

[It is estimated that each plant produces 10.14 kg biosoil per day, which is 1,216 kg biosoil per cooperative times 6 cooperatives. The estimated price of a kg of biosoil is $0.51 USD per kg biosol.]

5. Coffee price premiums from sale of certified carbon neutral coffee of at least $660,000 USD per year.

[The price premium is estimated to be $2.50 USD per quintal of coffee, and on average each cooperative produces 44,000 quintals of coffee per year, so for 6 cooperatives the estimated amount of quintals of certified coffee would be 264,000 (reference COOPEDOTA)].

6. Generation of 18 temporary jobs per year.

***Gender:*** Explain how the project is expected to impact women beneficiaries relative to male beneficiaries and described how that impact will be measured.

23% of the beneficiaries of this project will be female coffee producers. There is also a women's group in Santa Rosa de Copan engaged in coffee roasting under the brand “Honor Coffee” that are well-positioned to take part. The project will explore expanding this initiative to more women and to incorporate environmental benefits into their system. During the analysis mission, the scope of the problem will be further analyzed to explore whether it is possible to address gender issues within the framework of the project.

Describe how the ***data measuring impact*** will be collected and tracked.

Data will be collected by SNV with support from AHPROCAFE and validated by IHCAFE using a monitoring system designed by the project.

Indicate if the project will have an ***impact evaluation.*** Indicate why the project is suited to an impact evaluation (e.g. strategic value, knowledge gap, potential for expansion, statistical characteristics, etc.) The project will measure the proposed indicators but will not conduct an impact evaluation.

Describe how evidence will be gathered of ***adoption and scaling*** by others. Mention if some partners and/or other institutions have been already indentified or manifested their interest in scaling up the results of the operation.

Evidence of adoption by others will be that a voluntary technical standard on implementation of this technology in wet milling plants is issued by IHCAFE. EnDev-GIZ and AHPROCAFE have also expressed interest in the model, and have confirmed their participation in financing the technology that is required according to the results of the analysis and evaluations conducted. UNDP has expressed interest in expanding the GEF-funded intervention.

1. **EXECUTING AGENCY**

Provide a brief description of the ***executing agency*,** discussing its strengths and potential weaknesses for implementing the proposed project. Mention the institution’s previous experience with multilateral development banks and MIF. Include key findings regarding institutional integrity from the on line application.

SNV is an international nonprofit headquartered in The Hague, Netherlands. SNV has a presence in 33 developing countries with more than 1,500 staff. In Latin America they have more than four decades of field experience and a team made up of 200 staff. SNV has operated in Honduras since 1987 as a development NGO. In 2007, they obtained their legal status. They have over 20 years of experience providing technical assistance in the country, including inclusive business value chains, environmental sustainability, institutional development and organizational strengthening, and technical vocational education, in sectors such as agriculture (specifically coffee and horticulture), energy, and tourism, among others.

In Honduras, SNV has a technical team of eight advisers and a team of financial, administrative and support staff of eight people who coordinate, implement and monitor their existing portfolio. SNV Latin America’s budget amounts to 11 million euros, and in Honduras it is 1.25 million euros. SNV runs a regional program in partnership with the IDB MIF "Economic Inclusion of the Base of the Pyramid" with companies that have transformed the lives of more than 20,000 low-income families whose income increased 20%-70% in Peru, Ecuador, Nicaragua, El Salvador and Honduras. It is currently in implementation and is meeting its objectives.

Explain how the project fits the ***institution’s core business*** and whether the project is aligned with the institution’s priorities and overall mission.

SNV has defined a corporate strategy for 2007 to 2015 focused on two main areas of impact: (i) increased production, income and employment, and (ii) access to basic services to alleviate poverty in developing countries. Under this approach, they have decided to focus and prioritize their efforts and resources to develop three main areas: a) Renewable Energy; b) Water, Sanitation and Hygiene; and c) Agriculture, with an axis of environmental sustainability and climate change. The aim of SNV is to promote economic and social inclusion of people with low incomes through technical advisory services to public entities, private companies and civil society organizations, creating strategic and innovative solutions tailored to their customers. In the renewable energy sector, SNV's strategy is aimed at encouraging the production and use of biomass energy to improve the living conditions of poor families by generating new income and employment opportunities and reducing environmental pollution and negative effects of climate change.

Explain briefly any ***special or innovative execution arrangements*** if deemed relevant for project eligibility. **NA**

Mention if ***other partners*** will be involved in the project and their roles.

The Honduran Association of Coffee Producers (AHPROCAFE) will finance staff for the coordination of activities with its members, such as the promotion and awareness of the cooperatives selected for the project. The Honduran Coffee Institute (IHCAFE) will fund the pilot plant infrastructure and support promotion, marketing, research and development. The selected cooperatives will finance the purchase of the plants to produce bioethanol, biogas and bio-fertilizers and other necessary infrastructure recommended in the Green Plan with their own funds or external financing (e.g. FLO, Root Capital, BANCAHFE, or others). EnDev, the energy access program for poor communities executed by GIZ and funded by the Kingdom of the Netherlands and Germany, is a strategic partner and co-funder of bio-digestion technology. EFICO Foundation (which belongs to the coffee trading company EFICO, based in Belgium) is a potential co-funder of the project. All these strategic alliances will be endorsed by an interagency support agreement.

***Country Office view*** about the executing agency. In this box the COF specialist should comment about the executing agency and its capacity to execute the project.

SNV will be able to generate positive results within the framework of this initiative. AHPROCAFE is recognized by its members and facilitates the working structures by having departmental and local offices in the territories. For its part, IHCAFE is the technical agency that provides specialized technical assistance to coffee growers, which could facilitate the absorption of the knowledge transfer SNV will implement, and they have expertise in this area. Please note that the roles of each party will be outlined in greater detail during the analysis mission.

1. **MIF ADDITIONALITY**

***MIF Non-Financial Additionality:*** Discuss briefly what the MIF brings to the project in terms of non-financial contribution, which may include reputation, image, credibility, technical expertise, brand recognition, leverage potential, partner networks, skills complementing those of the executing agency, or synergies with other existing operations.

The MIF provides reputation, image, credibility, expertise and potential to leverage other resources to expand the initiative once the model is fully validated. In addition, the operation will generate knowledge that may be of strategic value for other countries in the region, in which coffee also plays a dominant role in employment and the economy. On the subject of coffee, MIF has strengthened regional organizations in different certifications in order to assure better access to higher value markets. This new C-Neutral certification will offer them more technical environmental training. In addition, with MIF participation in the project, SNV was able to leverage funds from UNDP and GIZ.

***MIF Financial Additionality*:** Explain why MIF financial participation is critical for developing the project (there is little or no alternative funding).

The technical and financial viability of certain technologies to mitigate climate change in the coffee sector has not yet been demonstrated. This project will begin to explore this area with small scale industry. To date, there has been an absence of a reliable and credible technological model to demonstrate good performance, technical and financial effectiveness, and to promote replication and expansion in the sector. Hence the importance of the financial contribution of the MIF.

1. **PROJECT RISKS**

Identify potential ***risks*** that may impede achievement of the project’s development objectives. Identify risks in the following categories (choose the ones that apply or add other categories if it is necessary):

(ii) **Bad project design or assumptions – The project assumes that international consumers will pay a** premium of $2.50 USD per quintal for carbon neutral certified coffee. This price premium could be less than the estimated. A case study will be conducted to COOPEDOTA which will help to analyze the impact on the price for a cleaner coffee in the international market.

(iii) **External Risk**: Instability in the international coffee market may cause prices to decrease, effecting small producers. Negative changes in the political situation in Honduras could also lead to the suspension of disbursements from the MIF to implement the project.

(v) **Sustainability risk**: Changes in consumer willingness to pay for environmentally sustainable products that measure and certify carbon footprints.

1. **ENVIRONMENTAL AND SOCIAL ASPECTS**

Describe if there are any ***positive or negative environmental or social spillover effects***. Highlight if the project includes any important aspects regarding social inclusion or indigenous groups. If there is the risk of negative spillover effects mention how the project is planning to mitigate it.

The project might help develop a collective environmental awareness among residents and organizations and institutions in the region, attracting the interest in carbon neutral certification for other products and / or coffee services. The project could promote the image of the region as a protagonist of environmental protection and combating climate change above and beyond the coffee sector. This image could be used for purposes of promoting tourism and culture. Moreover, the western region has a population of Chorti Maya that could be directly benefiting from this initiative.

1. **OTHER COUNTRY OFFICE COMMENTS**

Any other comments pertaining to any of the previous sections, the project’s viability, or other issues from the Country Office Specialists should be included in this section.

As part of the strategic guidelines of MIF in Honduras, we have prioritized an increase in the number of interventions in the West and South regions of the country. These regions were selected as models in the National Plan, and specific actions are currently being developed to establish a local production model with emphasis on competitiveness, so this initiative would be responding to that element of increased focus. Coffee is the second best developed productive chain in the country and its production is located in the central and west regions, so that the intervention is well located.

1. The term "collective action problem" describes the situation in which multiple individuals would all benefit from a certain action, which, however, has an associated cost making it implausible that any one individually can or will undertake and solve it alone. The rational choice is then to undertake this as a collective action the cost of which is shared. [↑](#footnote-ref-1)
2. <http://hdr.undp.org/en/media/HDR_2011_EN_Complete.pdf> [↑](#footnote-ref-2)
3. Annex I contains the preliminary organizations that have been pre-selected. [↑](#footnote-ref-3)
4. This Project is been requested by the International Coffee Organization through GEF funds [↑](#footnote-ref-4)